

Work Order ID 121621

Thursday, June 26, 2014 3:04:51 PM

121621

Page 1

Item ID: D4870-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: End Fitting, Small **24**
 Start Date: 6/26/14 Start Qty: 42.00 ***42*** Cust Item ID:
 Required Date: 6/26/14 Req'd Qty: 42.00 ***42*** Customer:
 Reference:

Approvals: Process Plan: MLJ Date: 14-06-30 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4870	REV A

100 0.00
100
 Outsource5 Memo 0.00
 Outsource process - Machining

ISSUE P/O: 24906
 POSSIBLE SUPPLIER: ATG

C OF C IS REQUIRED

110 QC6- Inspect dimensions to drawing 0.00
110
 QC Memo 0.00
 Quality Control

DAS
 38
 9-89

DEC 16 2014

150 PURCHASING 0.00
150
 Purchasing Memo 0.00
 Purchasing

Issue P/O: 24906
 LPI Per ASTM 1417 LEVEL 2
 Certificate of conformaty is required

done @ ATG

CL 14/07/08 24

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Page 2

Thursday, June 26, 2014 3:04:51 PM

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160	Receive & Inspect for Damage & Mat'l Certs	0.00							
160									
Packaging	Memo	0.00							
Packaging	Ensure certificate of conformity is attached								

24x SP14-12-16

190	QC21 - Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.00							
Quality Control									

DAS
06
8-09

DEC 17 2014

14/12/18

14-12-17

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
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Transport									
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FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Picklist Print

July-31-14 11:23:33 AM

Page 1

Work Order ID: 121621

121621

Parent Item: D4870-1

D4870-1

Parent Item Name: End Fitting, Small

Start Date: 6/26/14

Required Date: 6/26/14

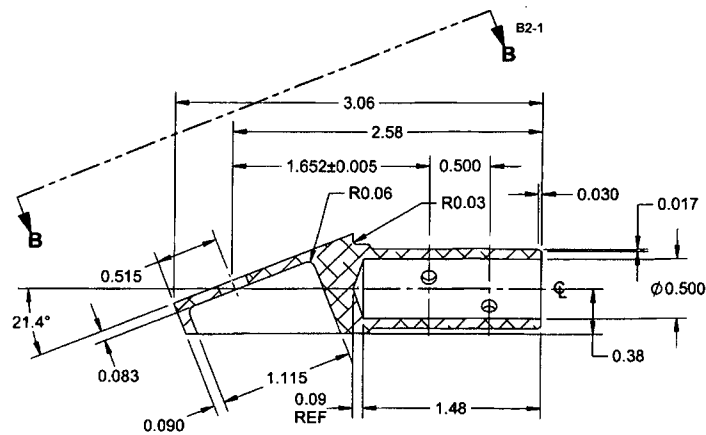
Start Qty: 24.00

Required Qty: 24.00

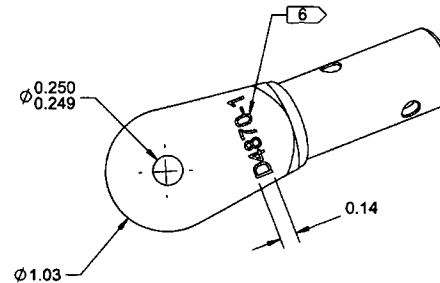
Comments: IPP REV:A NEW ISSUE 14-01-28 JLM VERIFIED BY:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4870-1P		Purchased	No				Each	0.0000		24			
D4870-1P									**				
End Fitting, Small													
M174PH-H900R1.500		Purchased	No				f	130.2166		8			
M174PH-H900R1 500									**				
17-4SS H900 ROUND BAR 1.500													
				<u>Location</u>			<u>Loc Qty</u>						
				MAT031			130.2166						
				M128809			1.2583						
				M129892			128.9583						

24x SP14-12-16
8
CD14/07/08
8

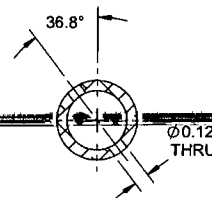
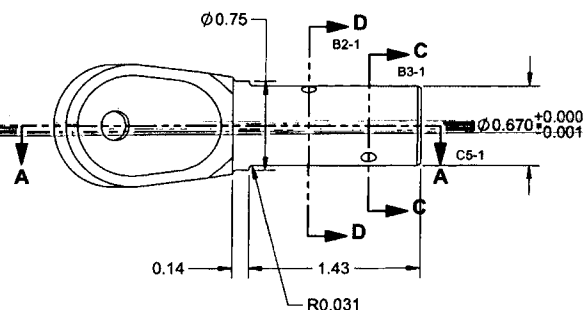


SECTION A-A B5-1

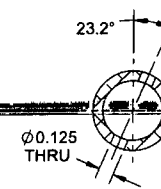


AUXILIARY VIEW B-B D5-1

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 121621 ML5
14-0630



SECTION C-C B5-1



SECTION D-D B6-1

D4870-1 END FITTING, SMALL

NOTES:

- 1) MATERIAL: 17-4 PH/S17400/TYPE 630 SS ROUND BAR, H900 CONDITION
PER AMS 5643/ASTM A564
DART SPEC M17-4-R
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.3.
ENGRAVE P/N USING 0.14 HIGH LETTERS TO A MAX. DEPTH OF 0.010
- 7) WEIGHT: 0.18 lbs
- 8) LIQUID PENETRANT INSPECT PER QSI 038 6.1.1 (ASTM E1417 LEVEL 2)

APPROVED

A	NEW ISSUE	RF	13.09.16
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	HS	DRAWING NO.	REV. A
MFG. APPR.	JLM	D4870	SHEET 1 OF 2
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	END FITTING	NTS
DATE	13.12.09 <small> COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD </small>		

RELEASED
2013-12-12
mb



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO24906

Purchase Order Date 7/8/2014
PO Print Date 8/20/2014

Page Number 1 of 8

Order From :

VC-ATG001

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

REUSED \$

Contact Name

Vendor Phone 613-446-4544

Ship To Contact

Ship To Phone

Ship Via: VENDOR'S TRUCK

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

FAV

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extend Pr
1	D4870-1P AS PER DWG D4870-1 REV. A B121621	End Fitting, Small	12/19/2014 Yes 12/19/2014	FN	24.00 Each	\$133.00	\$3,192
Line Total:							\$3,192
2	D4870-3P AS PER DWG D4870-3 REV. A B121535	End Fitting, Large	12/19/2014 Yes 12/19/2014	FN	24.00 Each	\$133.00	\$3,192
Line Total:							\$3,192
3	D4871-1P AS PER DWG D4871-1 REV. A B121490	End Fitting	12/19/2014 Yes 12/19/2014	FN	30.00 Each	\$130.00	\$3,900

Note:

8/20/2014



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 909316

Date: 16-Dec-14

To

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
Canada

Ship To

CHANTAL LAVOIE
DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.		
✓ 24 ea	Part: D4870-1P END FITTING, SMALL Job: 16636	PO: PO24906	Rev: A Line: 1
16 ea	Part: D4805-5P END FITTING Job: 16649	PO: PO24906	Rev: A Line: 14
18 ea	Part: D4869-3P END FITTING, EYE Job: 16650	PO: PO24906	Rev: A Line: 15
30 ea	Part: D4805-3P END FITTING Job: 16652	PO: PO24906	Rev: A Line: 17
10 ea	Part: D4808-1P ROD END Job: 16653	PO: PO24906	Rev: A Line: 18
24 ea	Part: D4869-1P END FITTING, EYE Job: 16654	PO: PO24906	Rev: A Line: 19
24 ea	Part: D4870-3P END FITTING, LARGE Job: 16637	PO: PO24906	Rev: A Line: 2
29 ea	Part: D4871-1P END FITTING Job: 16638	PO: PO24906	Rev: A Line: 3
30	Part: D4871-3P		Rev: A



F.A.I.

First Article Inspection Report

#

521

Requesting Company:	Dart Aerospace	PO#:	PO24906	Line:	1	Qty:	24
Part Number:	D4870-1P	Rev:	A	Part Description:	End Fitting, small		
FAI Supplied by:	A.T.G. Industries Inc.	FAI Prepared by:	Emily Louis-Seize	Date:	July 14, 2014		
Qty Inspected:	24	FAI Inspected by:	Mike Csontos	Date:	December 14, 2014		

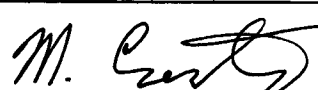
Material and/or Special Processes

Type	Description	Specification Number/Code	Certificate of Conformance Number:
Material	17-4SS H900		Supplied by Customer
Special Process	Liquid Penetrant	QSI 038 6.1.1 (ASTM E1417 Level 2)	PO#: 20140501

Inspection Information and Results

Char#	Location	Requirement	Result	UoM	Pass/Fail	Measurement Equipment:	Operation #:
1	D6	3.06	3.055	inch	Pass	Vernier Caliper	2
2	D6	2.58	2.581	inch	Pass	Height Gauge	2
3	D6	1.652±.005	1.649	inch	Pass	Height Gauge	3
4	D6	R.06	R.062	inch	Pass	Radius Gauge	2
5	D6	.500	0.499	inch	Pass	Height Gauge	3
6	D6	R.03	R0.03	inch	Pass	Radius Gauge	1
7	D5	.030	.031	inch	Pass	Comparator	1
8	D5	.017	.018	inch	Pass	Comparator	1
9	C5	Ø.500	Ø.502	inch	Pass	Gauge Pin	1
10	C5	.38	.379	inch	Pass	Height Gauge	2
11	C6	1.48	1.476	inch	Pass	Depth Micrometer	1
12	C6	.09 REF	.095	inch	Pass	Depth Micrometer	1

Inspection Information and Results

Char#	Location	Requirement	Result	UoM	Pass/Fail	Measurement Equipment:	Operation #:
13	C6	1.115	1.113	inch	Pass	Vernier Caliper	2
14	C7	.090	.091	inch	Pass	Micrometer	2
15	C7	.083	.082	inch	Pass	Micrometer	2
16	C7	21.4°	21.4°	degree	Pass	Comparator	2
17	D7	.515	.514	inch	Pass	Micrometer	2
18	D4	Ø.250/.249	Ø.249	inch	Pass	Gauge Pin	2
19	D3	Note 6	✓	n/a	Pass	Visual	2
20	C3	.14	.146	inch	Pass	Vernier Caliper	2
21	C4	Ø1.03	Ø1.03	inch	Pass	Vernier Caliper	2
22	B6	Ø.75	Ø.75	inch	Pass	Micrometer	1
23	B5	Ø.670+.000/-.001	Ø.6697	inch	Pass	Micrometer	1
24	B6	1.43	1.430	inch	Pass	Height Gauge	1
25	B6	R.031	R.03	inch	Pass	Radius Gauge	1
26	B6	.14	.140	inch	Pass	Height Gauge	1
27	C3	36.8°	36.8°	degree	Pass	Comparator	3
28	B3	Ø.125 thru	Ø.125	inch	Pass	Gauge Pin	3
29	C2	23.2°	23.2°	degree	Pass	Comparator	3
30	B2	Ø.125 thru	Ø.125	inch	Pass	Gauge Pin	3
First Article Inspection Report Approved and Completed in Full by:				 Date: 15-Dec-14			

skyservice Work Order Traveler


Sky Service F.B.O. Inc.

DOT APP 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO23016	Customer: ATG Industries Inc	Dept: NDT YUL	Reference: 20140501
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

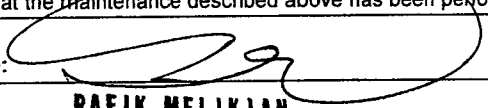

CARRY OUT NDT ON 26 END FITTING SMALL P/N D4870-1P AS PER PO: 20140501

Action Taken:	Date:	Initial/Stamp:
LPI C/O IAW ASTM E-1417M-13 ***NO CRACK FOUND*** PEN.(ZL-37 , B#10A070), DEV.(SKD-S2,B#13D14k) , EMU.(ZR-10B,B#10A074).	DEC 10 2014	

Description	Location	P/N	Qty	Batch	S/N Off	S/N On

COPY

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature: 	ACA/SCA Stamp	Date:
Name: RAFIK MELIKIAN		DEC 10 2014

SKYM002-1 REV 4 Mar/14